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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/559,762

12/07/2005

Satoshi Murata

126711

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EXAMINER

MEYER, KATY E

ART UNIT

PAPER NUMBER

3618

MAIL DATE

DELIVERY MODE

05/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/559,762	Applicant(s) MURATA, SATOSHI	
	Examiner Katy Meyer	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 15, 2009 has been entered.

Response to Arguments

Applicant's arguments filed April 15, 2009 have been fully considered but they are not persuasive. Applicant argues that the hub (70) shown by Shimizu is not connected to the cylindrical member via the bearing (5). However, paragraphs [0015] and [0017] of the attached translation of JP 2003-300420 disclose that rotor (30) is connected to the cylindrical member (40) via a bearing (5), and rotor (30) is fixed to hub (70) by bolts (23). Therefore, by way of the rotor, the hub is connected to the bearing.

Applicant's amendment to claim 1 directed to the side of the cylindrical member on which the bearing is disposed necessitated the new grounds of rejection below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, 9, 11, and 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Shimizu (JP 2003-300420) in view of Laurent et al. (US 6,113,119).

Shimizu discloses a suspension system for a vehicle, comprising: an outer rotor type motor having a stator (42,43) provided on an outer surface of a cylindrical member (40) that defines space open to at least an inboard side of the vehicle, and a rotor (30) rotatably supported by the cylindrical member, wherein the outer rotor type motor is provided within a wheel (1) and the rotor of the outer rotor type motor is connected to the wheel (see 21); a suspension arm whose mounting portion is provided on an inner surface of the cylindrical member (see 62); and a hub (70) that is fixed to the wheel in the vicinity of a wheel rim and is connected to the cylindrical member via a bearing (5) that allows relative rotation between the cylindrical member and the wheel, wherein the hub has an annular shape so as to be accommodated between the cylindrical member and the rotor (Fig. 1), such that load inputs to the wheel are transmitted to the cylindrical member only via the rotor and the bearing and then are received by the suspension arm. Shimizu does not disclose a bearing on the side of the cylindrical member opposite the suspension arm.

Laurent et al. show a suspension system for a vehicle wherein a hub (15) is fixed to a wheel (14) in the vicinity of a wheel rim (Fig. 2) and is connected to a cylindrical member (3) via a bearing (2) on a side of the cylindrical member opposite the suspension arm (70), said bearing allowing rotation between the cylindrical member and the wheel. It would have been obvious to one of ordinary skill in the art at the time the invention was made to simply move the bearing to the opposite side of the cylindrical

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member, since it has been held that rearranging parts of an invention involves only routine skill in the art. See *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

Shimizu further discloses a brake disk located within the space defined by the cylindrical member (see Fig. 3) and bolted to the hub (see 168). Shimizu further discloses a double row angular bearing (5).

Claims 3, 6, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (JP 2003-300420) in view of Laurent et al. (US 6,113,119) as applied to claim 1 above, and further in view of Braschler (US 5,289,905).

Shimizu and Laurent et al. meet all the limitations of the claimed invention, but does not disclose a sealing. Braschler (see Fig. 3) show a sealing (88) in board of a rotor (90) and adjacent one of two bearings (86). Nagaya further disclose a second bearing (3g). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the system disclosed by Shimizu and Laurent et al. with the seals taught by Braschler to protect the bearings from damage or debris that might adversely affect their performance.

Shimizu further discloses a double row angular bearing (5). A brake disk is located within the space defined by the cylindrical member (see Fig. 3) and bolted to the hub (see 168).

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katy Meyer whose telephone number is (571)272-5830. The examiner can normally be reached on Monday - Thursday, 8:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on 571-272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. M./
Examiner, Art Unit 3618

/Christopher P Ellis/
Supervisory Patent Examiner, Art Unit 3618